

REMARKS

Claims 1-3, 5-12 and 14-29 are pending in this application, of which claims 1, 10, 19, 23, and 27 are independent. Applicants amend claims 1, 10, 19, 23, and 27. No new matter has been added. Applicants respectfully submit that all of the pending claims are in condition for allowance, and respectfully request reconsideration of the outstanding rejections and allowance of all pending claims in view of the reasons set forth below.

I. Summary of Telephonic Interview

Applicants thank the Examiner for the courtesy of an interview on August 7, 2009. During the interview, Applicants discussed the cited references and the present application with the Examiner. The Examiner suggested amending the independent claims to clarify what is provided in the claimed comments, and further to clarify the process of generating the code generation report. The present amendments are directed to the subject matter which was discussed with the Examiner during the interview.

II. Claim Rejections under 35 U.S.C. § 103(a)

Claims 1-3, 5-12, and 14-29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,114,149 to Aptus et al. (hereafter “Aptus”) in view of U. S. Patent No. 7,099,809 to Dori (hereafter “Dori”), and further in view of U.S. Patent No. 6,961,686 to Kodosky (hereafter “Kodosky”). Applicants respectfully traverse the rejection.

A. Claims 1-3 and 5-9

Applicants’ independent claim 1 recites:

1. A method comprising:
generating source code from a simulatable block diagram model using a code compiler, the simulatable block diagram model represented in a source model language, *wherein the generated source code includes one or more comments that include a block path identifying a section of the source model language that corresponds to an element in the block diagram model*;
generating a code generation report from the generated source code using a report compiler, the generating of the code generation report comprising:
parsing, using the report compiler, the one or more comments in the generated source code,

identifying, using the report compiler, the block path in the one or more comments, and
 converting, using the report compiler, the generated source code into the code generation report by *replacing the block path with a hypertext link that refers to the element of the block diagram model that corresponds to the section of the source model language identified by the block path*, the hypertext link providing a hyperlink from the code generation report to the element in the block diagram model; and displaying the code generation report to a user.

Applicants respectfully submit that Aptus, Dori, and Kodosky, alone or in any reasonable combination, do not disclose or suggest at least the following features of claim 1: (1) that *the generated source code includes one or more comments that include a block path identifying a section of the source model language that corresponds to an element in the block diagram model*; (2) *identifying, using the report compiler, the block path in the one or more comments*; and (3) *replacing the block path with a hypertext link that refers to the element of the block diagram model that corresponds to the section of the source model language identified by the block path*.

1. None of Aptus, Dori, or Kodosky disclose or suggest that *the generated source code includes one or more comments that include a block path identifying a section of the source model language that corresponds to an element in the block diagram model*

Applicants respectfully submit that none of the cited references disclose or suggest that *the generated source code includes one or more comments that include a block path identifying a section of the source model language that corresponds to an element in the block diagram model*.

Aptus is generally directed to a system which generates HTML documentation for source code in a software project (Aptus at Abstract). The Examiner cites “comments” in Aptus at columns 21-23, and Figures 20, 24, and 25. However, as shown in Figures 20, 24, and 25, none of the cited comments *include a block path identifying a section of the source model language that corresponds to an element in the block diagram model*, which is present in claim 1.

Indeed, the specific comments of Aptus the Examiner refers to (involving the “see” parameter, Office Action at page 3) appear to include only a reference to another class in the source code. In contrast, comments as recited in claim 1 include a reference to a *block path*

identifying a section of the source model language that corresponds to an element in the block diagram model. Accordingly, Aptus does not disclose or suggest *the generated source code includes one or more comments that include a block path identifying a section of the source model language that corresponds to an element in the block diagram model*, as required by claim 1.

Dori also does not disclose or suggest that *the generated source code includes one or more comments that include a block path identifying a section of the source model language that corresponds to an element in the block diagram model*. Dori is generally directed to techniques for generating textual descriptions of a graphical model (Dori at Abstract). Dori discusses the generation of source code beginning at column 15, line 62. However, in the examples of generated source code in Dori (see, e.g., Figures 32-35), no comments are provided that include *a block path identifying a section of the source model language that corresponds to an element in the block diagram model*, which is present in claim 1. Dori is silent regarding comments that include anything that corresponds to an element in a block diagram model. Therefore, Dori cannot disclose or suggest *the generated source code includes one or more comments that include a block path identifying a section of the source model language that corresponds to an element in the block diagram model*, as required by claim 1.

Kodosky is generally directed to the generation of a hardware implementation for graphical code (Kodosky at Abstract). Kodosky provides samples of code generated according to his invention at columns 23-33. In the examples provided, comments are included in the generated code (see, e.g., column 30, “check for loop completion”). However, none of the comments include *a block path identifying a section of the source model language that corresponds to an element in the block diagram model*, which is present in claim 1. Therefore, Kodosky cannot disclose or suggest *the generated source code includes one or more comments that include a block path identifying a section of the source model language that corresponds to an element in the block diagram model*, as required by claim 1.

2. None of Aptus, Dori, or Kodosky disclose or suggest identifying, using the report compiler, the block path in the one or more comments

Applicants respectfully submit that none of the cited references disclose or suggest *identifying, using the report compiler, the block path in the one or more comments*, which is

present in claim 1. In claim 1, the report compiler parses the source code and identifies the block path provided in one or more comments. None of the cited references disclose identifying any feature present in the comments of the generated source code. Each of Aptus, Dori, and Kodosky appear to be silent regarding the above-quoted feature of claim 1.

3. None of Aptus, Dori, or Kodosky disclose or suggest replacing the block path with a hypertext link that refers to the element of the block diagram model that corresponds to the section of the source model language identified by the block path

Applicants respectfully submit that none of the cited references disclose or suggest *replacing the block path with a hypertext link that refers to the element of the block diagram model that corresponds to the section of the source model language identified by the block path*, which is present in claim 1. In claim 1, the report compiler parses the source code and actively replaces the block path with a hypertext link. None of the cited references disclose or suggest such a replacement.

The Examiner cites columns 3 and 21-24 of Aptus for “hypertext links” (Office Action at pages 3-4). The cited hypertext links do not replace any element in the documentation. Aptus appears to be silent regarding how the cited “MyThread” hyperlink is placed in the HTML documentation, as depicted in Figure 25. Aptus does note that MyThread is designated using the “@see” parameter (Aptus at col. 23, lines 30-35). However, Aptus does not indicate, explicitly or implicitly, that the cited hyperlink is placed in the HTML documentation on the basis of the “@see” parameter.

However, even if Aptus was somehow able to be construed so as to disclose placing the “MyThread” link in the HTML documentation on the basis of the “@see” parameter, this hypothetical construction still would not satisfy the above-quoted feature of claim 1. Claim 1 recites *replacing a block path that refers to an element of the block diagram model that corresponds to the section of the source model language identified by the block path* is *replaced*. The “MyThread” notation after the “@see” parameter is not a block path and does not refer to an element of the block diagram model. Instead, the MyThread notation refers to another class in the source code. This is different than the *block path that refers to an element of the block diagram model that corresponds to the block path* which is present in claim 1.

In Dori, no explicit hypertext link is provided, and the Examiner does not suggest that Dori discloses a hypertext link. Instead, the Examiner cites Dori's ability to allow a user to mouse over an element of natural language text and highlight a corresponding element in a graphical representation ("maintaining an equivalence between a diagram model ... and a textual description," Office Action at page 4). However, this capability of Dori does not entail ***replacing the block path with a hypertext link that refers to the element of the block diagram model that corresponds to the section of the source model language identified by the block path***. Dori is silent regarding this feature of claim 1.

The Examiner cites column 35 of Kodosky for "linking the software source code" (Office Action at page 5). However, the cited passage from Kodosky appears to be describing "linking" software source code over a communications link and subsequently compiling the software source code. The "linking" of Kodosky is not related to ***hypertext links***, which are present in claim 1. Accordingly, Kodosky does not disclose or suggest ***replacing the block path with a hypertext link that refers to the element of the block diagram model that corresponds to the section of the source model language identified by the block path***, which is present in claim 1.

For at least these reasons, Applicants respectfully submit that Aptus, Dori, and Kodosky, alone or in any reasonable combination, does not disclose or suggest each and every element of independent claim 1. Claims 2-3 and 5-9 depend from claim 1 and therefore include each and every element of claim 1. Thus, Aptus, Dori, and Kodosky, alone or in any reasonable combination, do not disclose or suggest each and every element of claims 2-3 and 5-9. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of claims 1-3 and 5-9 under 35 U.S.C. § 103(a).

B. Claims 10-12 and 14-18

Applicants' independent claim 10 recites:

10. A system comprising:
means for generating source code from a simulatable block diagram model represented in a source model language, ***wherein the generated source code includes at least one comment that includes a block path, the block path identifying a section of the source model language that corresponds to a block in the block diagram model***;

means for generating a code generation report from the generated source code, the generating of the code generation report *parsing the at least one comment in the generated source code to identify the block path in the at least one comment* and *replacing the at least one comment with at least one hypertext link that refers to an element of the block diagram model that corresponds to the section of the source model language identified by the block path*, the hypertext link providing a hyperlink from the code generation report to the element of the block diagram model; and
an output device for displaying the code generation report to a user.

Applicants respectfully submit that Aptus, Dori, and Kodosky, alone or in any reasonable combination, do not disclose or suggest that *the generated source code includes at least one comment that includes a block path, the block path identifying a section of the source model language that corresponds to a block in the block diagram model*, nor *parsing the at least one comment in the generated source code to identify the block path in the at least one comment*, nor *replacing the at least one comment with at least one hypertext link that refers to an element of the block diagram model that corresponds to the section of the source model language identified by the block path*, which are present in claim 10.

As discussed above, “comments” as disclosed in Aptus, Dori, and Kodosky each do not include a *block path* that corresponds to a block in a block diagram model. None of the cited references parse the comments of the source code to *identify a block path*, and none of the cited references *replace* a comment with at least one hypertext link.

Aptus, Dori, and Kodosky, alone or in any reasonable combination, do not disclose or suggest each and every element of independent claim 10. Claims 11-12 and 14-18 depend from claim 10, and therefore include each and every element of claim 10. Thus, Aptus, Dori, and Kodosky, alone or in any reasonable combination, do not disclose or suggest each and every element of claims 11-12 and 14-18. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. §103(a) rejection of claims 10-12 and 14-18.

C. Claims 19-22

Applicants’ independent claim 19 recites:

19. A computer program product residing on a computer readable medium

having instructions stored thereon which, when executed by a processor, cause the processor to:

generate source code from a simulatable block diagram model represented in a source model language, ***the generated source code including at least one comment that includes a block path, the block path identifying a section of the source model language that corresponds to a block in the block diagram model;***

generate a code generation report from the generated source code, the generating of the code generation report ***parsing the at least one comment in the generated source code to identify the block path in the at least one comment*** and converting the generated source code into the code generation report by ***replacing the at least one comment with at least one hypertext link that refers to an element of the block diagram model corresponding to the section of the source model language identified by the block path***, the hypertext link providing a hyperlink from the code generation report to the element of the block diagram model; and

display the code generation report to a user.

Applicants respectfully submit that Aptus, Dori, and Kodosky, alone or in any reasonable combination, do not disclose or suggest that ***the generated source code including at least one comment that includes a block path, the block path identifying a section of the source model language that corresponds to a block in the block diagram model***, nor ***parsing the at least one comment in the generated source code to identify the block path in the at least one comment***, nor ***replacing the at least one comment with at least one hypertext link that refers to an element of the block diagram model corresponding to the section of the source model language identified by the block path***, which are present in claim 19.

As discussed above, the comments of Aptus, Dori, and Kodosky each do not include a ***block path*** that corresponds to a block in a block diagram model. None of the cited references parse the comments of the source code to ***identify a block path***, and none of the cited references ***replace*** a comment with at least one hypertext link.

Aptus, Dori, and Kodosky, alone or in any reasonable combination, do not disclose or suggest each and every element of independent claim 19. Claims 20-22 depend from claim 19, and therefore include each and every element of claim 19. Thus, Aptus, Dori, and Kodosky, alone or in any reasonable combination, do not disclose or suggest each and every element of claims 20-22. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. §103(a) rejection of claims 19-22.

D. Claim 23-26

Applicants' independent claim 23 recites:

23. A computing system comprising:
a processor and
a memory,
wherein the processor and memory are configured to:
generate source code from a simulatable block diagram model
represented in a source model language, ***the generated source code including at least one comment including a block path that identifies a section of the source model language that corresponds to a block in the block diagram model;***
generate a code generation report from the generated source code,
the generating of the code generation report ***parsing the at least one comment in the generated source code to identify the block path in the at least one comment*** and converting the generated source code into the code generation report by ***replacing the at least one comment with at least one hypertext link that refers to an element of the block diagram model corresponding to the section of the source model language identified by the block path,*** the hypertext link providing a hyperlink from the code generation report to the element of the block diagram model; and
display the code generation report to a user.

Applicants respectfully submit that Aptus, Dori, and Kodosky, alone or in any reasonable combination, do not disclose or suggest that ***the generated source code including at least one comment including a block path that identifies a section of the source model language that corresponds to a block in the block diagram model,*** nor ***parsing the at least one comment in the generated source code to identify the block path in the at least one comment,*** nor ***replacing the at least one comment with at least one hypertext link that refers to an element of the block diagram model corresponding to the section of the source model language identified by the block path,*** which are present in claim 23.

As discussed above, the comments of Aptus, Dori, and Kodosky each do not include a ***block path*** that corresponds to a block in a block diagram model. None of the cited references parse the comments of the source code to ***identify a block path,*** and none of the cited references ***replace*** a comment with at least one hypertext link.

Aptus, Dori, and Kodosky, alone or in any reasonable combination, do not disclose or suggest each and every element of independent claim 23. Claims 24-26 depend from claim 23,

and therefore include each and every element of claim 23. Thus, Aptus, Dori, and Kodosky, alone or in any reasonable combination, do not disclose or suggest each and every element of claims 24-26. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. §103(a) rejection of claims 23-26.

E. Claims 27-29

Applicants' independent claim 27 recites:

27. A method for generating a document having information about source code associated with a graphical model and providing a hyperlink referencing an element of the graphical model in the document, the method comprising the steps of:

providing source code identifying an element of the graphical model, wherein the graphical model is a simulatable graphical model represented in source model language, ***the source code including at least one comment including a block path that identifies a section of the source model language that corresponds to a block in the graphical model;***

generating a document from the source code, the generating of the document ***parsing the at least one comment in the generated source code to identify the block path in the at least one comment*** and converting the generated source code into the document by ***replacing the at least one comment with at least one hypertext link that refers to an element of the graphical model corresponding to the section of the source model language identified by the block path***, the at least one hypertext link providing a hyperlink from the document to the element of the graphical model; and

displaying the document to a user.

Applicants respectfully submit that Aptus, Dori, and Kodosky, alone or in any reasonable combination, do not disclose or suggest that ***the source code including at least one comment including a block path that identifies a section of the source model language that corresponds to a block in the graphical model***, nor ***parsing the at least one comment in the generated source code to identify the block path in the at least one comment***, nor ***replacing the at least one comment with at least one hypertext link that refers to an element of the block diagram model corresponding to the section of the source model language identified by the block path***, which are present in claim 27.

As discussed above, the comments of Aptus, Dori, and Kodosky each do not include a ***block path*** that corresponds to a block in a block diagram model. None of the cited references

parse the comments of the source code to *identify a block path*, and none of the cited references *replace* a comment with at least one hypertext link.

Aptus, Dori, and Kodosky, alone or in any reasonable combination, do not disclose or suggest each and every element of independent claim 27. Claims 28-29 depend from claim 27, and therefore include each and every element of claim 27. Thus, Aptus, Dori, and Kodosky, alone or in any reasonable combination, do not disclose or suggest each and every element of claims 28-29. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. §103(a) rejection of claims 27-29.

CONCLUSION

In view of the above, Applicants respectfully submit that the pending application is in condition for allowance. Should the Examiner feel that a teleconference would expedite the prosecution of this application, the Examiner is urged to contact the Applicant's attorney at (617) 227-7400.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080, under Order No. MWS-042RCE3. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. §1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

Dated: August 12, 2009

Respectfully submitted,

Electronic signature: /John S. Curran/
John S. Curran
Registration No.: 50,445
LAHIVE & COCKFIELD, LLP
One Post Office Square
Boston, Massachusetts 02109-2127
(617) 227-7400
(617) 742-4214 (Fax)
Attorney/Agent For Applicants